

## NEW SPECIES OF FLIES OF THE GENUS BATHYPOGON LOEW

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This genus is a characteristic one in the southern hemisphere but is restricted to Chile and Australia. It appears to be a comparatively large and successful group within the family.

### *Bathypogon calabysi*, new species

A very small species, characterized by the widely black mesonotum, with nearly black, lateral margins; by the brownish white, facial bristles; the black bristles of the supraocciput, mesonotum and scutellum. Hypandrial plate of terminalia with a very minute tooth. Length 11 mm.

**MALE. HEAD:** The ground color of the head everywhere black except for a narrow band of medium brown color just above the epistoma, which is continued on to the anterior half of the cheeks beneath the eyes, but is interrupted by a diffusely arranged black spot, which also reaches to the eye. As a result, the posterior cheeks are black, followed by brown, and in front of this brown area there is a diffuse blackish spot representing a lateral extension of the epistomal margin. Lying upward or above and medial to the lower spot of brown, there is a second spot or band of brown. The upper two-thirds of the face is black. Pollen is brownish white or very pale yellow along the eye margins. The bristles of the face are few in number; on the middle of the low elevation there are 5 or 6 long, stout, pale brown bristles and several additional pairs on the oral margin. Besides these in the middle of the face there are from 25 to 30 shorter, much more slender, white bristles or bristly hairs. The antenna is black; the apex of the second and base of the third segments quite narrowly brown; antennal and palpal pile white. The short, upper bristle row of the occiput and the ventral, occipital pile is white. The postvertical bristles of the occiput, 2 or 3 bristles between the ocelli, and 1 on either side of the anterior vertex are all dark brown but not black. The postvertical cluster contains 7 or 8 bristles.

**THORAX:** The mesonotum is black with the exception of the humerus, which is medium brown, perhaps slightly reddish. The lateral margin is narrowly and obscurely brown. The pollen of the dark areas is quite dark brown with a slight golden cast. Lateral pile is pale brownish yellow. The compliment of mesonotal bristles consists of the usual 12 and all are black, including the scutellar bristles. The postalar callosity is pale in color. All pleural bristles are pale, except 2 stout, metapleural elements, which are brown. The pleuron is medium brown with several black areas, which consist of the center of the upper propleuron, which is extended laterally on to

the middle of the anterior coxa, the lower half of the sternopleuron, all of the mesopleuron, except the anterior and posterior parts, and the anteroventral half of the hypopleuron. Pleural pollen pale brown.

**LEGS:** The legs are medium to light brown in color with the anterior half and most of the dorsal margin of the anterior and middle femora black from base to apex and the lateral and dorsal surfaces of the hind femur and the whole lateral surface of the hind tibia black. The anterior surface of the anterior tibia and anterior and middle surface of the middle tibia are dark brown; the remainder of these tibiae rather light brown and slightly reddish. Medial surface of hind tibia and all of the tarsi dark brown. The claws are unusually slender from both dorsal and lateral view, are comparatively sharp and are light brown on at least the basal third.

**WINGS:** The wings are pale, brownish hyaline, the apex at most only faintly darker, the veins are sepia, except before the humeral crossvein, where they are light brown. The lower end vein of the discal cell makes a strong angle with the end vein of the fourth posterior cell.

**ABDOMEN:** The abdomen is black and rather shining. The pollen on the dorsal surface of the tergites is thin and light sepia brown in color. Lateral margin of the first 3 tergites nearly completely margined narrowly with pinkish brown, but subapically indented by a diffuse, blackish extension. Traces of the same color are at the base of the fourth and fifth tergites and these areas with similarly colored pollen. Pile of the abdomen is quite pale, brownish yellow or brownish white. Sides of the first segment with 3 bristles. Terminalia distinctly light brownish red dorsally at the base of the superior forceps, and medium red or brownish red on the whole of the hypandrium and its dorsal extension. The hypandrium has only the most minute tooth.

Type. Male, Owieandana, North Flinders Range, collected by Hale and Tindale. No date given. Named in honor of Mr. John Calaby of Perth.

***Bathypogon douglasi*, new species**

A small species characterized by the wholly black legs; the thorax is black, except the humerus. All bristles are pale, although those of the mesonotum are medium reddish brown. Terminalia distinguished by the stout, tooth-like processes on the hypandrium and the down-curved, sharply pointed tooth on the apex of the superior forceps. Length 15 mm.

**MALE. HEAD:** The head is black, the pollen and pubescence completely greyish white except on a small triangle adjacent to the eye behind the ocelli where it is light brown. Pile on the lower half of the occiput, proboscis and palpus opaque white, the palpus and proboscis shining black. Bristles of upper occiput, vertex, face and antenna quite pale brown. Antenna black, the third segment unusually slender; the style is well developed.

**THORAX:** The thorax is black with only the humerus dark reddish brown. The anterior stripes of the mesonotum are distinct, separated by a narrow

yellowish brown stripe of pollen which from the anterior view becomes almost as wide as the adjacent dark stripe. The pollen over the middle of the mesonotum is reddish brown, but laterally pale, yellowish grey and more golden brown anteriorly between the humeri; pollen of the pleuron pale grey. The complement of thoracic bristles consists of 1 posthumeral, 2 notopleural, 1 supraalar, 2 postalar, 2 pairs of scutellar bristles, 4 or 5 post-dorsocentral and 1 or 2 differentiated metapleural bristles. The metapleural bristles are pale brownish yellow. The mesonotal bristles and scutellar bristles are light reddish brown.

LEGS: The legs are comparatively slender and everywhere black. The bristles and pile brownish yellow.

WINGS: The wings are hyaline, veins dark brown. Lower end vein of discal cell nearly three times as long as upper vein (discal crossvein) and making a strong angle with the lower end vein of the fourth posterior cell. Apex of wing not darker and without villi. Base of anterior branch of third vein with a distinct stub in one wing and a strong angle in the other wing.

ABDOMEN: The abdomen is black, the apex of the fifth tergite, the apical half of the sixth, the whole of the seventh and eighth light reddish brown. The dorsal pollen is distinctly reddish brown; the lateral pollen is widely grey. Terminalia light brownish red, except in the medial portion of the apical half of the superior forceps. These forceps are strongly rounded, convex distally with sharp, tooth-like, apical process. Hypandrium with stout but sharp, tooth-like process.

Type. Male, Townsville, Queensland, collected by G. F. Hill. No date given. Named in honor of Mr. Athol Douglas of Perth.

***Bathypogon flavifemoratus*, new species**

A small species characterized by the light yellow femora, which are distinctly though diffusely brownish black on the apical sixth or less, with an additional extension of black towards the base, situated dorsally and of varying length according to the pair. All tibiae and tarsi dark sepia brown; all bristles pale and the antennal segments brownish black. Length 15 mm.

FEMALE. HEAD: The head is black in ground color, except on the upper half of the face, which laterally is diffusely light yellowish brown or clay color, leaving most of the facial protuberance and a medial spot beneath the antenna blackish. The medial portion of the facial protuberance is pale. The pollen of the occiput and front and the pubescence of the face pale grey with a slight yellowish cast. The postvertical bristles are brownish yellow and the medial and lower bristles of the face are the same color and exceptionally stout, and reach only to the apex of the proboscis. The bristles of the antenna are brownish yellow; the lower occipital pile is nearly white. The first 2 segments of the antenna are brownish black; third segment unusually slender, with prominent style, blackish in color, becoming on the lower surface near the apex dark red. Palpus swollen, shining with nearly white pile, its color reddish sepia.

**THORAX:** The thorax is narrowly black down the middle of the mesonotum, the black forming 2 submedial stripes, which are separated anteriorly by red and throughout their length by a narrow stripe of brownish yellow pollen. These black stripes end at a point corresponding to the anterior plane of the postalar callosity and leave a large rectangle of reddish brown color in front of the scutellum. In addition to the submedial black stripes, which are completely bordered by red, there is a much wider but shorter black stripe beginning halfway on that portion of the mesonotum which lies in front of the suture and extends back to the posterior end of the postalar callosity. This lateral stripe has reddish brown pollen, except along the diagonal path of the transverse suture, which is pale grey pollinose. The anterior and lateral pollen on remaining red portion of the mesonotum is light brownish yellow. Pleuron chiefly light red with a small, black spot on the lower middle portion of the mesopleuron, the anterior pteropleuron, the lower sternopleuron and hypopleuron. Pleural pollen pale brownish yellow. The thoracic complement of bristles consists of 1 posthumeral, 2 notopleural, 1 supraalar, 2 postalar, 2 pairs of scutellar bristles and 4 postdorsocentral bristles, all of these being light reddish brown. Metapleuron without strong bristles and all other thoracic bristles pale yellowish white.

**LEGS:** The femora are comparatively slender, light yellow in color; the anterior pair has the apical sixth dark and an anterodorsal dark streak extends obliquely to the base. Middle pair with the apex dark and a dorsal stripe extending only over the outer third dark in color. On the hind femur there is a similar dark apex extending dorsally and obliquely upon slightly more than the apical third. All tibiae and tarsi very dark sepia brown. The ventral surfaces of the tarsi are medium reddish brown. Pile and bristles of the legs yellowish white. Bristles of hind femur unusually well developed, long and stout with 5 or 6 bristles laterally. Claws sharp, and reddish in color on the basal third.

**WINGS:** The wings are nearly hyaline with a faint tinge of brown. All the veins beyond the humeral crossvein are dark brown. Lower end vein of discal cell more than twice as long as the upper vein and making a strong angle with the end vein of the fourth posterior cell.

**ABDOMEN:** The abdomen is black, the second to fifth tergites with thin, dark, reddish brown pollen; the black lateral margins bear dense, grey pollen, which near the middle of each tergite extends triangularly in towards the middle of the segment but not as far as the red line. As the result, the dorsal, shining, black portion on tergites 2 to 5 has somewhat the appearance of broad, posteriorly rounded, saddle-like spots. Seventh and eighth tergites wholly shining black; pile and bristles of the abdomen yellowish white and weakly developed. Sides of the first tergite with 3 moderately strong bristles.

Type. Female, Townsville, North Queensland, collected by G. F. Hill. No date given.

The types of species described in this paper are in the South Australian Museum.